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XIII.—*New and insufficiently-known Moths in the Joicey Collection.* By LOUIS B. PROUT, F.E.S.

IN the following descriptions it is to be assumed that all the types, paratypes, etc., enumerated are in the collection of J. J. Joicey, Esq., unless otherwise specified.

In working out the Noctuidæ, subfamily *Catocalinæ*, which form the great bulk of the paper, I am very largely indebted to my sister Miss A. E. Prout, who is at present arranging this family in Mr. Joicey's collection. Sir George F. Hampson has also kindly given his advice on some points.

Family Arctiidæ.

Subfamily *LITHOSIINÆ*.

1. *Chionæma gonyptetes*, sp. n.

♂.—38-40 mm.

Head white, face narrowly red below, palpus and post-orbital rim red. Collar orange-red. Thorax white; patagia and tegulæ edged with red. Legs partly white (becoming yellowish on tarsi), partly orange-red. Abdomen orange, beneath white.

Fore wing with the lobes of underside formed about as in *conclusa*, Walk. (not quite so broad as in *ariologa*, Swinh., and *perornata*, Walk.), the proximal elongate, the distal circular, some rough orange-red hair-scales behind the proximal; above white, costal edge very narrowly red to

antemedian line; subbasal markings consisting of a small triangular red mark on costa, a black dot in cell, and an oblique, red, black-mixed dash behind SM^2 ; lines red; antemedian rather thick, straight, from before one-third costa (where it is proximally edged by a few black scales) to beyond one-third hind margin; postmedian arising on costa about midway between subbasal mark and apex, strongly oblique outwards to M^1 , here sharply bent, then straight to hind margin near tornus; a large anterior and a minute posterior black cell-dot; a red costal mark shortly beyond the postmedian line, connected with it by a faint reddish mark (really the reddened tips of the costal fringe); terminal line orange, thickening at apex.

Hind wing red-orange or orange-red, above with costal margin pale.

Fore wing beneath indefinitely mottled with ochreous and orange, posteriorly whitish; base of costa and lobes redder; costal edge whitish in front of the lobes; antemedian and postmedian lines present, but indistinct.

Mindanao, Philippines (*J. J. Mounsey*), 2 ♂♂. Probably near *axiologa*, Swinh.; may be placed as No. 648 *c* in the subfamily.

2. *Chionæma brunneistriga*, sp. n.

♀.—19 mm.

Closely similar to *rubristriga*, Holl., the red markings light ochreous-brown.

Fore wing with antemedian line strongly bisinuate; postmedian rather thick, rather strongly angulated outwards in middle; three black-brown subapical spots, the middle one (between R^1 and R^2) well developed, the anterior and posterior ones minute.

Fort Crampel, French Congo.

Possibly a form of *rubristriga*, Holl., as the colour is known to be somewhat variable, and specimens of apparently that species from Sierra Leone and Gold Coast in coll. British Museum show faint traces of a brownish subterminal spot between R^1 and R^2 , but the antemedian line seems too different, and the Cameroon series in coll. Joicey shows no transitions towards the new form.

3. *Chionæma additicia*, sp. n.

♀.—22 mm.

Closely similar to *basisticta*, Hmps., slightly broader-winged. Head white.

Fore wing with the markings yellowish ochraceous

costally, becoming redder posteriorly; an additional black dot, placed on DC⁴; terminal line broken into dots except towards apex.

Pujehun (Pujeon), Sierra Leone.

Family Noctuidæ.

Subfamily CATOCALINÆ.

4. *Acanthodica albiplena*, sp. n.

♂.—16 mm.

Head and body coloured as in the lighter examples of *splendens*, Druce.

Fore wing reddish brown mixed with grey and with purplish brown, slightly lighter than in *splendens*; the fine, black, green-edged lines as in that species; white subbasal and inner-marginal spots larger; reniform stigma almost wholly white, broad posteriorly; the spot behind it also whiter than in *splendens*, larger and less round, anteriorly almost reaching M just proximal to the hinder angle of cell; proximally to these, two much smaller round white spots, the anterior (indicated, though minuter and less conspicuous, in *splendens*) placed in the cell near its end, the posterior (larger and slightly more proximal) in the angle of M with M²; white inner median area clearer than in *splendens*, its anterior extension prolonged, almost confluent with the reniform; terminal area as in *splendens*.

Hind wing almost entirely glossy white, only with the hair-scales and fringe of abdominal margin light brown, and with a row of dark vein-dots slightly nearer the termen than those of *splendens*; a blackish terminal line, thickening at apex and becoming obsolete just behind M², reappearing as a slight spot at end of SM²; fringe light brown, between M² and SM² and between SM² and tornus white.

Fore wing beneath similar to that of *splendens*, but lighter. Hind wing beneath predominantly white; costal area moderately irrorated with brown, with a broad dark mark from anterior extremity of DC to costa, the postmedian dots commencing at an oblique, somewhat curved dark costal streak, a small dark dash on middle of submedian fold, the terminal dark band (usually well developed in *splendens*) almost entirely obsolete except at apex.

Minca, Colombia, 2000 feet (H. H. Smith).

5. *Acanthodica sinuilinea*, sp. n.

♂.—16–19 mm.

Head and body coloured as in the lighter examples of

splendens, the contrast of colour between patagia and tegulae rather sharper.

Fore wing coloured and marked nearly as in *splendens*, but easily distinguished as follows: subbasal white mark more strongly developed, with more conspicuous M-shaped distal edge; reniform stigma (on an average more mixed with white) more strongly constricted in middle, 8-shaped or spectacle-shaped (the deeper indentation being in proximal side); postmedian line *incurved between R^2 and M^1* .

Hind wing whiter than in *splendens*, the dark borders similar, but on an average appreciably narrower, often almost obsolete in posterior part.

Underside nearly as in *splendens*, the dark border of the hind wing tending to obsolescence posteriorly.

Yahuarmayo, S. Peru, 1200 feet, May–July, 1912 (*Watkins*), type; others from the same locality, from La Union, Rio Huacamayo, Carabaya, S.E. Peru (*Ockenden*), and from Rio Ampiyacu, Putumayo, Peruvian Amazons.

A ♀ from Contamana, Rio Ucayali, Peru, Nov.–Dec., 1912, which—on account of the curved postmedian line—probably belongs here, has almost the whole fore wings whitened from base to the reniform and the pale patch behind it, only an irregular costal border of about 2 mm. width (encroached upon at the subbasal white mark) and a spot on hind margin proximal to the antemedian line remaining normally coloured; hind wing with the dark borders broad, as in *splendens*, of which the ♀ is also unknown. As the three white central spots—the reniform and the spots placed proximally and posteriorly thereto (which are all discernible through their purer white outlines on the whitish area)—are all enlarged, this is possibly a species distinct from both those named.

6. *Acanthodica celebs*, sp. n.

♀.—44–46 mm.

Head and body coloured nearly as in *xylinoides*, Schaus, the dark brown admixture rather stronger, especially on vertex, which in *xylinoides* generally remains clear ochreous-brown; “patagia” edged with bluish- or greenish-white proximally.

Fore wing ochreous brown suffused with red-brown, least heavily in costal region; a *black longitudinal line* running from near base to termen, in cell and between R^1 and R^2 ; markings otherwise nearly as in *xylinoides*, but with the dark marks in anterior part quite small and weak and with

a conspicuous grey-white patch behind cell near base, as in *fosteri*, Hmps. n.

Hind wing with termen fuller in middle than in *xylinoides* (shaped more as in *fosteri*), the apex consequently less pointed; coloration nearly as in the darkest *xylinoides*, but slightly more clouded still, at least in apical and distal region.

Underside much as in heavily-marked *xylinoides*, but with the longitudinal line of upperside developed in distal half.

Minca, Colombia, 2000 feet (H. H. Smith), type and another ♀.

Perhaps the ♀ to *xylinoides*, which occurred with it in the same locality—which, however, is undoubtedly very rich in Noctuidæ. Unfortunately, ♀ ♀ of many of the species are still unknown.

7. *Agonista endochrysa*, sp. n.

♂.—96-98 mm.

Head and thorax above velvety black-brown; pectus chocolate-brown, posteriorly mixed with ochreous; hind coxa, femur, and tibia predominantly ochreous; abdomen golden yellow, dorsal surface anteriorly black-brown, narrowing off to a point about the fifth segment.

Fore wing velvety black-brown; fringe golden yellow, becoming black-brown behind SM².

Hind wing velvety black-brown, somewhat lighter apically; abdominal margin golden yellow; fringe golden yellow from tornus to before M².

Fore wing beneath dull chocolate-brown, rather darker basally; a small indistinct dark spot at end of cell; a row of minute yellow subterminal dots between the veins (smaller than those of *plateni*); fringe yellow. Hind wing beneath slightly darker, the abdominal region yellow about to M¹, more or less heavily irrorated with dark brown at the junction of the two colours.

N. Borneo, the type from Sandakan (A. L. Cook).

Possibly the Borneo race of *endoleuca*, Guen. Has been misidentified as *plateni*, Pag. (compare Hmps. n., Cat. Lep. Phal. xii. p. 268). The true *plateni*, from Palawan, is very different and should form a separate section of the genus, with normally shaped ♂ hind wing (not elongate to tornus; termen convex); the absence of yellow on the abdomen, presence of a golden-yellow terminal band on hind wing from tornus to R², narrower yellow abdominal margin above, more extended yellow abdominal region of hind wing beneath, and pale yellow tornus of fore wing beneath, further distinguish the Palawan species.

8. *Nyctipao hieroglyphica tenebrata*, subsp. n.

♂.—Differs from *N. hieroglyphica* in the complete absence of the pale postmedian markings on both surfaces of the fore wing.

♀.—Pale markings much reduced, especially on the underside; subapical streak of fore wing very narrow.

N. Borneo, type ♂ and allotype ♀ (Sandakan).

Misidentified by Hampson as *purpurata*, Druce, but differing in the venation of the fore wing (see Hampson's excellent classification in Cat. Lep. Phal. xii. p. 273 seq.) and slightly in the hind wing.

9. *Nyctipao albicrustata*, sp. n.

♀.—100 mm.

Head and body brown, the upperside of thorax strongly, of abdomen less strongly, darkened. Fore and middle legs predominantly deep brown.

Fore wing with the colours and pattern arranged as in ♂ *leucotania*, Guen. (Hmps., Cat. Lep. Phal. xii. t. cvii. f. 7), but less tinged with ochreous or reddish; proximal area more uniformly dark, the antemedian line (often distinct in *leucotania*) consequently almost entirely obsolete; white band outside median line broad from SC to beyond R² (5 mm. in cellule 7); subterminal white spots anteriorly placed further from termen, the series consequently forming a less acutely angulated line; the subcostal one considerably more elongate (anteriorly 8 mm.), the second also elongate (circ. 4 mm.), the rest moderate, wedge-shaped or triangular, posteriorly ill-defined.

Hind wing with white subapical spot longitudinal, not oblique; subterminal otherwise obsolescent, almost parallel with postmedian throughout.

Fore wing beneath with the white submarginal spots greatly enlarged, as compared with those of *leucotania*, the first (as above) 8 mm., the second and third larger than above, connected with an ill-defined pale shade proximally, those in cellules 5, 4, and 3 very large (9–10 mm.), the former two proximally reaching the median line. Hind wing beneath with the first white subterminal spot as above, the second moderate, the rest present but indistinct, forming a nearly straight line, in sharp contradistinction to the highly-angled one of *leucotania*.

Key Islands, Jan.–March 1916 (*W. J. C. Frost*).

Belongs to the same structure group as *leucotania*, which also inhabits the Key Islands, but abundantly distinct.

10. *Enmonodia villicosta*, sp. n.

♂.—86 mm.

Closely akin to *pudens*, Walk., of which it might be regarded as a local race. Coloration the same. Hair of hind tarsus only clothing the first joint (one hind leg only sound); that of pectus and femora brighter scarlet (in *pudens* more orange-ochreous, mixed or tinged with scarlet).

Fore wing with the variable dark spot near base of M¹ in both the known examples small, its longitudinal measurement exceeding the transverse.

Hind wing with the almost straight median line showing behind R¹ a very slight tendency to curve inwards, not (as in *pudens*) outwards; the postmedian dots rather nearer to and more nearly parallel with the median than is usual in *pudens*; a rather distinct narrow dark border, as in *feniseca*, Guen., and *lactipex*, Hampsn.; *beneath with the long woolly hair occupying also the costal region*.

Mindanao, Philippines (*Mounsey*), type and another.

As the androconial hairs of the hind wing are evidently liable to abrasion, it is just possible that bred specimens of *pudens* would show them also in the mid-costal region; but many specimens have been examined (as also by Hampson) without revealing an indication of this.

11. *Speiredonia remota capitulifera*, subsp. n.

♂.—Differs from *remota remota*, Feld. (S. Moluccas to Aru) in having the median area of the *fore wing* darker, more uniform (in *r. remota* distally fading out to nearly the ground-colour), the head of the comma-shaped mark reduced in size (about 3×1.5 mm.), entirely filled in with black.

Hind wing with central part blacker than in *remota remota*.

Bankala, Celebes (*J. C. van Hasselt*).

A ♀ ("Celebes ex Marsden"), possibly representing a different race, is smaller (56 mm.), the *fore wing* with the discoidal mark not reduced, the median line interrupted by it, the postmedian approximated to it (thus occupying about the position of the median of *remota remota*), the subterminal less deeply dentate, the hind wing with the whitish subterminal line much more distally placed.

GENUS LAGOPTERA, Guen.

Guenée's note (Spec. Gén. Lép. vii. p. 223) on the short third joint of the male palpus holds in all the species

represented in the Joicey collection, and presumably throughout the genus. Snellen's challenge of it (Tijd. v. Ent. xxviii. p. 11) was due to his erroneous composition of the genus, and it is curious that Hampson, who has purified it, has not noticed the palpal structure in more detail.

12. *Lagoptera rubida velutina* (Warr., MS.?), subsp. n.

♀.—Differs from *rubida rubida*, Walk., as follows: Pectus much darker, strongly mixed with dark grey-brown.

Fore wing with posterior spot of reniform stigma (not mentioned in Hampson's description) much larger, nearly confluent with anterior spot, pale with dark centre; anterior part of postmedian line more sharply defined; pale distal border of more uniform width nearly to tornus, then obliquely cut off, the ground-colour running to tornus.

Hind wing with the blue-white band at least twice as broad (5 mm.), narrowing gradually at its extremities.

Underside rather more smoky than in *r. rubida*.

Arfak Mountains, Dutch New Guinea (*Prati*), type and another, the type from Angi Lakes, 6000 feet, March 1914; the type labelled by Talbot "*Lagoptera rubida velutina* Warr.," which must be an unpublished name.

Perhaps a separate species.

13. *Lagoptera ochrobrunnea*, Strand.

Lagoptera inversa ab. *ochrobrunnea*, Strand, Arch. Nat. lxxix. A, (8) p. 71 (1914) (=ab. 1, Hmps., Cat. Lep. Phal. xii. p. 419).

It was overlooked by Hampson that this is a perfectly distinct species, and the differentiation from true *inversa*, Walk. (= *bivirgata*, Snell.), though just sufficient to give validity to Strand's name, needs supplementing.

♂ ♀.—Size and nearly shape of *inversa*, distal margin of hind wing perhaps slightly more irregular. Head and thorax more tinged with ochreous, *pectus* and *underside of palpus* clear ochreous. Abdomen rather paler, beneath more mixed with ochreous.

Fore wing more ochreous-brown than in *inversa*; subbasal line obsolete, except for the feeblest traces costally; ante-median rather more proximally placed; median area ample (8–10 mm. wide), containing in addition to the reniform a black proximal dot representing the orbicular; distal area without pale line in front of R^1 ; narrow pale terminal band rather broader and more variegated than in *inversa*.

Hind wing with the bluish-white band much narrower and shorter than in *inversa*; white patches on fringe more ochreous and more extended than in *inversa*.

Underside, excepting the apical and distal region of fore wing, rather paler than in *inversa*, on proximal part of hind wing more ochreous; tornal fringe of fore wing pale; fringe of hind wing as above.

Penang, type in coll. British Museum. N. Borneo, both sexes in coll. Joicey.

13a. *Lagoptera ochrobrunnea nicanora*, subsp. n.

♂ ♀.—64–80 mm.

Pectus and legs strongly suffused with smoke-colour or blackish.

Fore wing more reddish than in the name-type, sometimes almost as in *L. inversa*; median area generally less broad than in *ochrobrunnea ochrobrunnea*, but with the postmedian line still running to hind margin, not (as in *inversa*) to subterminal line; distal area with dark vein-streaks stronger and more diffused; terminal area slightly broader, with the fine line at termen dentate, enclosing a whitish interneural dot in each tooth; pale parts of fringe more clouded with smoky scales.

Hind wing above blacker, with the thin white streak generally sharper.

Underside darker, especially on fore wing.

Dutch New Guinea: Wandammen Mtns., 3000–4000 feet, Nov. 1914 (*A. E. & F. Pratt*), type and another ♂; Arfak Mtns., 4000 feet, Feb.–March 1909 (*C. B. Pratt*), 1 ♂. Also from Sudest and Rossel Islands. Here belong further Hampson's Dutch New Guinea records of "*inversa*."

Labelled by Talbot "*Lagoptera inversa nicanora*, Warr.," which must be an unpublished name.

14. *Anna subdiversa*, sp. n.

♂.—64 mm.

Head and thorax red-brown; palpus black-brown, at base mixed with ochreous beneath; antennal shaft proximally white. Pectus and femora reddish ochreous; tibiae and tarsi predominantly blackish. Abdomen light ochreous brown, dorsally suffused with dark grey.

Fore wing red-brown, with scattered blackish irroration and with more or less strong dark leaden-grey suffusions, which leave freer the middle of the wing and a very ill-defined subterminal band; extreme costal edge ochreous proximally; antemedian line indistinct, dark, distally pale-edged, sinuous and strongly oblique outwards to submedian

fold, here angled, then oblique inwards to hind margin; orbicular represented by a small dot, as in the allies; reniform dark leaden-grey, with a few minute olive-whitish dots at its proximal posterior corner and two less minute dots (anterior and posterior) at its distal edge; postmedian line nearly as in *reducta*—bicurved anteriorly, but less bent in front of SM² than in that species; subterminal nearly as in *reducta*, but better developed at costa, with a strong triangular black spot in cellule 6; subternal olive-grey patch larger, tripartite (crossing SM²); a row of pale dots close to termen.

Hind wing with the rounded lobe strong; colour of *xylochroa*, but slightly more ochreous at costa and with stronger black clouding in distal part; a dark cell-dot discernible; termen and fringe as in *reducta*.

Fore wing beneath paler ochreous-grey proximally than in the allies, the costal margin more smoky, the dark reniform sharply expressed; dark distal border sharply expressed, 8-9 mm. in breadth, continued proximally, though less sharply expressed, behind M to near base. Hind wing beneath similar to that of *reducta*, but with cell-mark present and with the dark distal border obsolete posteriorly.

Gambia (*A. Moloney*).

The ♀, from Friapere Forest, Coomassie, is similar above, though smaller, the fore wing with more uniform slate-grey suffusions, the hind wing darker; both wings beneath darker, the distal border of hind wing broader, complete. The species probably represents *reducta* (from Madagascar) in W. Africa, but in the absence of material from the intervening region I have not regarded it as a subspecies. It may be added that the group *Stenopsis*, Mab. (=Sect. D. Hmps., Cap. Lep. Phal. xii. p. 451), embraces also *david*, Holl., and *despecta*, Holl., the hind wing being produced in the whole group; of *david* the ♂ in coll. British Museum was damaged, of *despecta* Hampson knew only the ♀; "a" and "b" in Hmps. (pp. 451, 456) will therefore have to be merged.

15. *Anua producta*, Holl.

This species is evidently somewhat variable, and it is very doubtful whether *xylochroa*, Druce, is anything more than a pale form of it, perhaps a Congo race. From Entebbe, Uganda, Mr. Joicey has a further form, or perhaps closely allied species, of a more reddish tone (particularly noticeable on the thorax and along posterior margin of fore wing), the

fore wing with less dark clouding, lines more sharply expressed, postmedian with the bends less deep, subterminal black markings in cellule 6 developed, terminal white dots obsolescent, underside paler proximally and especially between cell and the dark distal border. I provisionally name this *Anua producta rubescens*, subsp. n.

16. *Anua david*, Holl.

Probably also a rather variable species, recognizable in the ♂ by the bright ochreous hind wing beneath, in the ♀ generally by the bright ochreous fringes of the hind wing.

In a puzzling form from the Congo, however, which in the absence of the ♂ I provisionally refer to *david*, though it may probably prove a separate species, the fringes are more whitish yellow (intermediate towards those of the white-fringed allies); further distinguished by having the antemedian line oblique inwards from one-fourth costa, right-angled at M, in *david* from nearer base (mainly vertical), the postmedian more deeply bicurved anteriorly and bluntly *angled inwards at submedian fold*. I name this form ♀ *ab. camptogramma*, ab. n. (? bon. sp.).

A. hypoxantha, Hmps. (Nov. Zool. xxv. p. 206), may well be an eastern race of *david*.

17. *Anua violisparsa*, sp. n.

♂ ♀.—65–70 mm.

Face deep brown mixed with whitish, upper part with rufous; vertex bright rufous. Palpus black-brown, somewhat sprinkled (especially beneath) with whitish scales. Thorax above deep chocolate-brown, patagia and tegulae rufous; pectus and femora paler, more ochreous, the tufts of hair in the ♂ here bright orange-ochreous. Abdomen dark above, paler beneath.

Fore wing reddish chocolate irrorated with light violet scales, the irroration very sparse between postmedian and subterminal lines; antemedian line very indistinct, apparently less acutely angled behind M than in the allies; a minute blackish dot in cell; a faint grey discoidal spot about as in *reducta*; postmedian indistinct, slightly violet-edged proximally, shaped nearly as in *reducta* or rather more irregular; subterminal line fine, black, interrupted, irregularly dentate, rather deeply incurved in middle, generally swelling in cellule 6 into a more or less conspicuous black spot; a less interrupted pale green line edging the subterminal distally, except at costal and posterior margins;

a strong though not sharply defined band of light violet irroration in distal area, approximately parallel to the sub-terminal; terminal line reddish, inconspicuous, deeply crenulate, with a white dot at proximal extremity of each tooth.

Hind wing dark grey-brown, with a very narrow mid-terminal area of violet irroration; a crenulate dark terminal line, in the distal interspaces of which the shading is pale violet or whitish, fringe with slight pale irroration but nowhere distinctly white.

Fore wing beneath dull grey-brown, the base, costal edge, and broad distal margin darker. Hind wing beneath palest at the base, in the ♂ with the rest of the costal and a very broad apical region darkened, in the ♀ with more than the distal half of wings darkened, the two shades in neither sex sharply defined.

Bitje, Ja River, Cameroons, 2000 feet, wet season (*G. L. Bates*), type ♂ (April–March 1912) and 3 ♀ ♀ (Oct.–Nov. 1913, and undated). Also a ♀ from Entebbe, Uganda. Belongs to the group *Stenopsis*.

18. *Ercheia kebea borneensis*, subsp. n.

♀.—46–49 mm.

Thorax and *fore wing* (especially distal part) paler and more ochreous than in *kebea kebea* from New Guinea; tufts at end of "patagia" still brighter ochreous.

Hind wing less blackish than in *kebea kebea*, with some ochreous-brown admixture.

Underside much paler than in *k. kebea*, median band of hind wing twice indented behind middle.

Bidi, Sarawak, 1907–08 (*C. J. Brooks*), 2 ♀ ♀.

Perhaps the discovery of the ♂ will show this to be a separate species. The lobe on hind margin of fore wing is possibly less developed than in true *kebea*. Neither specimen shows any trace of the longitudinal line given by Hampson (*Cat. Lep. Phal.* xii. p. 483) as characteristic of the ♀, but this is only aberrational in the sex.

19. *Ercheia amœna*, sp. n.

♀.—50 mm.

Head and thorax whitish grey, mixed with dark brown; palpus ochreous-brown, mixed with dark brown; patagia and tegulæ red-brown, mixed with white at edges. Metathorax and abdomen above darkened; underside of body

and legs mostly light ochreous-brown; hair of fore tibia partly white. Hind tibial spines concealed (wanting?).

Fore wing with hind margin lobed and excised nearly as in *kebea*, termen evenly curved, feebly subcrenulate, thus transitional between Hampson's two sections (Cat. Lep. Phal. xii. pp. 483, 484); very variegated; costal edge narrowly blackish, irregularly dotted with ochreous; costal area from base to postmedian line and a narrow area between postmedian and subterminal lines predominantly of a warm brown; a broad central streak from base nearly to postmedian and the terminal area predominantly vinaceous; posterior region proximally darker, mottled (red-brown, purplish, and blackish), marked with a few green scales near hind margin; a large greenish (distally paler and yellower) blotch on hind margin proximally to the postmedian line, connected with a curved green line which anteriorly reaches M^2 at its extremities; antemedian line obsolete; a minute dark dot in cell representing the orbicular; a longitudinal thick dark line from this to the postmedian, crossing the reniform, which is indefinitely outlined in green with a whitish dot at its anterior and a minuter one at its posterior distal extremity; postmedian line black, irregularly edged with greenish proximally, mostly very fine, at its extremities dentate, between R^1 and M^2 strongly excurved; a large but ill-defined dark semicircular costal patch (shaded with blackish brown and purple) between the postmedian and subterminal; subterminal whitish, mixed with some green, blue, and yellowish scales, very fine and ill-defined anteriorly, fine and dentate between R^1 and submedian fold, then thicker, straighter, and whiter to hind margin close to tornus; some irregular dark dots and dashes close to termen, obsolete anteriorly; fringe olive-brown.

Hind wing blackish fuscous, at costal margin pale and glossy; a narrow postmedian pale band indicated between R^2 and SM^2 , but not sharply defined; fringes ochreous, slightly darker proximally and with a small fuscous spot opposite R^3 .

Both wings beneath fuscous, strongly mixed in proximal half with bright ochreous; a slightly elongate dark cell-spot (best marked on hind wing); a narrow pale postmedian band, sharply edged proximally with dark fuscous; fringes and part of termen light ochreous, the fringe with dark admixture; distinct dark interneural dots close to termen.

Arfak Mtns., Dutch New Guinea, 6000 feet, March 1910 (C. B. & F. B. Pratt).

20. *Ercheia latistria*, sp. n.

♀.—55 mm.

Head and body coloured as in sharply marked *dubia*, the white segmental lines of abdomen rather strong. Wings shaped as in *dubia*, or with the termen slightly more crenulate.

Fore wing with the coloration and essential markings of *dubia* and *cyllaria*; probably equally variable; in the unique type the prominent dark markings are the "semi-circular" costal patch between submedian line and apex, the costal end of antemedian and median lines, and a thick black longitudinal streak behind cell and proximal part of M^2 from base nearly to postmedian line, here crossing M^2 and continuing in cellule 2 to termen; postmedian line moderately distinct; subterminal line weak; broad but ill-defined terminal clouding between R^2 and tornus.

Hind wing blackish fuscous, with clean white markings, similar to those of *quadriplaga*, Walk., but broader.

Underside as in the most sharply marked forms of *dubia*, the basal part of both wings being predominantly white; cell-spot of hind wing smaller than in most *dubia*.

Gilolo, 1904.

Perhaps a local race of *dubia*, in which case *quadriplaga* and *cyllaria* may also belong to the same protean species.

21. *Achæa cyanobathra*, sp. n.

♂.—47 mm.

Head and body dark brown, the abdomen darker dorsally; pectus and hair of femora and tibiæ partly more ochreous; bases and tips of spines and narrow rings at ends of tarsal joints also pale.

Fore wing dark brown with very strong purple gloss (in the proximal area somewhat darker and much bluer, in the narrow terminal area wanting); a faint curved pale subbasal line from costa to SM^2 ; antemedian line 6 mm. from base at both margins, almost straight, slightly waved, little paler than the ground-colour; a weak dark spot representing the orbicular stigma; reniform nearly as in *intercisa*, Walk., but less conspicuous on the darker ground; postmedian line feeble, apparently formed as in *leucopera*, Druce, the veins beyond it with slight pale dashes; a dark double subterminal line slightly nearer the termen than in *leucopera* and wanting the apical ornamentation of that species; a crenulate dark terminal line; fringe with slender pale line at base and a less sharply defined one in middle.

Hind wing blackish brown, with golden-yellow apical patch formed about as the white patch of *leucopera*.

Fore wing beneath dark brown, somewhat varied with paler brown proximally; reniform large, dark, immediately followed by an ill-defined oblique ochreous band which ends in a rather large tornal patch; a slightly curved dark postmedian line, crossing the ochreous band but not reaching hind margin; a few minute ochreous costal dots between postmedian and subterminal; subterminal distinct from costa to R^2 , slightly bent outwards at SC^5 ; terminal area pale from costa to R^2 . *Hind wing* beneath dark brown with darker discoidal spot, curved median line, thick but ill-defined postmedian line (placed rather further from the median than in *leucopera*, at least posteriorly), and light ochreous-brown apical patch corresponding to the yellow patch of upperside, but containing dark brown irroration and crenulate terminal line thickened into dots on the folds.

Bitje, Ja River, Cameroons, 2000 feet, April-May 1912, wet season (*G. L. Bates*).

May be placed next to *intercisa*, Walk., but probably really much nearer *leucopera*, in spite of the considerable superficial differences.

22. *Achaëa jamesoni*, sp. n.

♀.—64 mm.

Head and body light brown, mixed (especially abdomen) with grey.

Fore wing rather light brown, from base nearly to postmedian line with violaceous reflections; antemedian dark line indistinct, from scarcely beyond one-fourth costa, somewhat oblique outwards to cell, then less oblique, slightly sinuate to hind margin at about 8 mm. from base; reniform chiefly indicated by dark spots at its anterior and posterior extremity; median shade almost obsolete, excurved beyond cell; a white costal patch near apex, clouded, except at its edges, with light tawny brown, relatively larger and narrower than that of *mabillii*, Saalm., its distal edge markedly indented at SC^5 ; postmedian line crenulate, arising from posterior margin of costal patch, more nearly parallel with termen than in *mabillii*, slightly bordered with whitish and ferruginous scales distally, a rather larger, ferruginous, white-edged spot developing at fold; no subterminal line; termen very narrowly shaded with pale violaceous except at extremities; faint traces of dark terminal line.

Hind wing grey-brown, darkest in distal part, especially

anteriorly; a small white apical patch, terminating at SC^2 , where it attains a measurement of 3 mm.

Fore wing beneath coloured much as in *mabillii*, subapical patch much more irrorated (in the paratype obsolescent), postmedian line from R^1 onwards almost parallel with termen, a dentate whitish subterminal indicated from costa to R^1 , 3–4 mm. from termen, a conical white blotch from tornus obliquely to M^2 . Hind wing beneath with weak dark cell-spot and curved median and postmedian lines and with traces of a dentate whitish subterminal.

Congo, Inkissi (Nkissi) River, Nkalama Falls, 18 April, 1887 (*Jameson*), ex coll. Druce, wrongly identified by Druce (*Jameson's 'Story of the Rear Column,'* p. 450) as *illustrata*, Walk. A damaged ♂ from Fantee, Gold Coast, also mentioned by Druce, likewise belongs here. The date of the type-specimen, correctly given as 18 April on the label, and confirmed from *Jameson's* itinerary (p. 24), is misquoted "18 August" on p. 450.

Allied to *mabillii*, but very distinct in the differently shaped non-latticed subapical patch, much straighter postmedian line, lack of white basal dot, etc.

23. *Achæa ministra*, sp. n.

♂ ♀.—69–78 mm.

Near *serva*, Fabr., with which it has hitherto been confounded. Palpus of ♂ with third joint much longer, over one-half as long as second.

Fore wing with the markings and general coloration of the darker forms of *serva*, the blue-purple reflections and black-brown terminal clouding almost always strong; fringe from near apex to M^2 pale buff, thus lighter (generally very much lighter) than in *serva*.

Hind wing with the interrupted oblique blue-white median band narrower than in *serva*, apical white spot generally smaller.

Underside darker than in *serva*, the whitish postcellular patch of fore wing smaller.

Dutch New Guinea: Wandammen Mtns., 3000–4000 feet, November 1914 (*A. E. & F. Pratt*), type and another ♂ and allotype ♀; Arfak Mtns. (*Pratt*); Upper Setekwa and near Oetakwa River (*Meek*). Key Islands, Dec. 1915–March 1916 (*W. J. C. Frost*).

Most of Hampson's *serva* ab. 1 (*purpurascens*, Strand, Arch. Nat. lxxix. A, (8) p. 73) belong to this species, but one or two, including the type-specimen, are dark aberrations of *serva*.

Rather variable, some forms superficially recalling *eusciata*, Hampsn., but with the first joint of mid-tarsus not fringed above. In the type-form there are strong bright ferruginous shades proximally to the antemedian line between cell and hind margin, and again near tornus, but these vary much in intensity and are sometimes entirely obsolete.

In Hampson's figure of the palpus of "*serra*" (Cat. Lep. Phal. xii. p. 521, fig. 123), the third joint is shown about twice as long as it appears in the fully-clothed palpus of true *serra*, but not quite as long as in the allies. As the figure of the entire insect does not belong here (see *infra*), it is not improbable that the anatomical details were also drawn from one of the allies; but, in any case, the importance of absolute precision in dealing with the palpi of this group was evidently underestimated.

24. *Achæa pentasema*, sp. n. (præc. subsp. ?).

♂ ♀.—72–82 mm.

Likewise similar to *serra*, but with the ♂ palpus of the preceding species.

Fore wing ochreous to red-brown, the purple gloss weak or wanting; markings as in *serra* and *ministra*, the dark cloudings of terminal area rarely very strong; reniform stigma commonly (as in some *serra*) obsolete, except for the anterior and posterior black dots; postmedian line in the type shaped as in *serra*, in other examples less sharply bent at R^1 ; fringe pale, but rarely as pale as in *ministra*.

Hind wing with all five spots sharply expressed, the terminal one near tornus broader and much better defined than in either of the allies (also better defined beneath).

Underside nearly as in the lighter and more variegated forms of *serra*, the blackish distal suffusion between postmedian line and tornus of fore wing always strong.

New Caledonia (*Layard*), type ♂. Also "Ueva, New Caledonia" (? *Uvea*), 1 ♂, Laucala, Fiji, 1 ♀, Suva, Viti Levu, 2 ♀ ♀, all in coll. Joicey. Lifu and Friendly Islands in coll. Brit. Mus.

Figured by Hampson, Cat. Lep. Phal. xii. p. 521, fig. 123, as *serra*.

25. *Achæa dmoë*, sp. n.

♂ ♀.—56–60 mm.

Head, thorax, and base of abdomen yellowish brown, sometimes with a rufous tinge; abdomen otherwise strongly

mixed with dark grey, the anal tuft pale; pectus and venter pale grey.

Fore wing moderately broad, costa curved towards the apex, which is minutely falcate, termen otherwise more convex than in *mercatoria*, Fabr.; light yellow-brown or red-brown, with strong vinaceous reflections—at least, in median area; distal area and costal edge generally more yellow; a white dot close to base; lines grey or blackish; subbasal faint and interrupted, obsolete posteriorly; ante-median fine, oblique, slightly crenulate, especially in anterior part; median rather thick, almost *straight*, bent proximad in front of C, placed beyond middle of wing; postmedian fine, finely crenulate-dentate, slightly angled at R^1 ; orbicular stigma represented by a black dot about 2 mm. from ante-median line, reniform by an anterior and a posterior black dot, 2 or 3 mm. inside median shade, with a weaker dot more proximally placed between them; a small pale violet-grey or somewhat vinaceous apical patch; a row of minute paired interneural dots (proximally black, distally white) close to termen.

Hind wing dusky greyish-ochreous, becoming almost black distally between costa and M^2 and with more irregular blackish admixture near tornus; a small whitish apical spot; an ill-defined light ochreous-brown band beyond middle, from R^1 or R^2 towards tornus, interrupted posteriorly; a light brown terminal patch towards tornus; fringe (with extreme termen) whitish from before R^1 to behind R^3 , otherwise brown.

Fore wing beneath light brown, violet-grey along costa and part of termen, somewhat clouded in cell and behind proximal half of M^2 ; cell-spot large, crescentic, black, touching the faint median shade; postmedian black, forming a very slight regular curve; a large black blotch beyond this, mainly between R^2 and M^2 ; traces of a pale crenulate subterminal line; minute admarginal dots nearly as above, but with whitish shading proximally. Hind wing beneath pale grey, more brownish costally and apically than posteriorly; a sharp black cell-dot, which sometimes shows through on upperside; three (usually in part ill-defined) brown lines beyond, the second and third dentate, the latter ending in a dark spot close to tornus; admarginal dots nearly as on fore wing; fringe warm brown except about the radials, posteriorly in dark-marked specimens fuscous.

Central Madagascar, 2500 feet, Jan.—March 1911 (*F. B. Pratt*), 4 ♂♂, 2 ♀♀.

Differs from *mercatoria*, Fabr., in shape, in straight median

line of fore wing, less irregular postmedian and more ochreous hind wing, marked more as in *faber*, HOLL. Rather variable in colour and especially in the strength of the markings; an aberration in which the antemedian lines are weak and the median shade strong and black may be named *ab. unilinea*, *ab. n.*

26. *Achea cymatias*, sp. n.

♂.—77–80 mm.

Head, thorax, and abdomen ochreous-brown, above darker. Palpus with third joint rather short. Antenna almost simple; mid-tarsus without hair; first and second joints of hind tarsus fringed with hair above.

Fore wing warm brown (ochreous mixed with dark olivaceous brown), between antemedian and median lines much paler, strongly overlaid with violaceous, in distal area variegated; antemedian line fine, almost straight, from one-third costa to two-fifths hind margin, whitish-edged distally; reniform narrow, crescentic, darkest and thickest at its ends, placed midway between antemedian and median; median line gently excurved in anterior part, incurved in posterior; postmedian from two-thirds costa to four-fifths hind margin, strongly bicurved (outwards between R^1 and M^1 , inwards between M^1 and hind margin), dark-shaded proximally and edged by a fine white or whitish line distally; distal area whitish violaceous near the postmedian line and in an ill-defined oblique shade from middle of subterminal to termen about fold, narrowly darkened at termen from this point to near apex, otherwise mostly olive-brownish; an oblique blackish shade from apex towards outer lobe of postmedian; faint traces of zigzag whitish subterminal line; a black dot at fold close to termen; terminal dark line ill-defined; fringe with a pale line at base and a second beyond middle.

Hind wing more fuscous; an indistinct slightly curved oblique pale median line; very faint indications of other pale lines or shades distally; a whitish apical spot; termen and fringe nearly as on fore wings, the fringe paler anteriorly than posteriorly. Both wings beneath grey-brown with crescentic cell-mark (on hind wing rounder), curved median and crenulate postmedian line and vague pale crenulate subterminal, accompanied proximally by a dark shade; terminal area paler, especially in distal half, which contains a row of small interneural black dots.

Bitje, Ja River, Cameroons, 2000 feet (*Bates*), 3 ♂♂, the

type taken in 1915, the other two labelled "dry season" but not dated.

Perhaps a race of *hypopolia*, Hmps. (Nov. Zool. xxv. p. 208), from British Central Africa. Fore wing with ante-median line more upright, postmedian more deeply bisinuate, and with violet shade in median area; hind wing with white apical spot.

27. *Achæa indistincta*, Walk.

This species, of which the type is in coll. Joicey, has been sunk by Hampson (Cat. Lep. Phal. xii. p. 538) to *ablunaris*, Guen. On account of the broader dark border of the hind wing (two-fifths of length of wing, against two-sevenths in *ablunaris*), combined with more angulated postmedian line on underside of both wings, it seems likely that it is really a separate species.

Costa Rica to Bogotá.

28. *Parallelia valga*, sp. n.

♀.—58 mm.

Head and body coloured as in *rigidistria*, Guen.; palpus with third joint considerably shorter than in the ♀ of that species, less than one-third as long as second joint.

Fore wing coloured as in the lighter forms of *rigidistria*; subbasal line as in that species; antemedian arising somewhat further from base, *strongly incurved* between SC and base of M^2 , strongly oblique outwards to hind margin near median line; median line slightly interrupted outward near costa; postmedian line much less deeply crenulate than in *rigidistria*, with a single angle at R^1 ; indications of a dark line from this angle to apex; subterminal further from termen, the dark shading beyond it rather weak; fringe light brown.

Hind wing with termen rather fuller near tornus than in *rigidistria*; less clouded with blackish; pale postmedian line wanting; tornal pale mark weak.

Underside rather paler than in most *rigidistria*; fore wing with the median line obsolete, postmedian extremely weak, arising further from termen than in *rigidistria*, apparently deeply incurved so as to reach postmedian angle of cell; hind wing with cell-dot replaced by a weak comma, median and postmedian lines approximated, especially posteriorly, the latter scarcely crenulate, subterminal chiefly shown by three or four weak yellowish spots in anterior part.

Khasia Hills (*Nissary*).

29. *Parallelia isotima*, sp. n.

♂ ♀.—29–36 mm.

Head and front of thorax yellowish brown; rest of thorax and abdomen brown-grey, the latter somewhat darkened dorsally. Fore leg (as in *humilis*, Holl.) somewhat darkened, the tarsal joints more markedly pale at the extremities than in that species.

Fore wing shaped and marked almost exactly as in *humilis*, more glossy, paler (especially at termen), olivaceous tinge rather more noticeable, postmedian line more decidedly incurved from R', thus forming an acuter angle at that vein.

Hind wing slightly less dark than in *humilis*, narrowly slightly paler at termen in posterior half; beneath with more extended white or whitish shading in terminal area (wanting in *humilis*).

Bitje, Ja River, Cameroons, 2000 feet (G. L. Bates), 5 ♂♂, 4 ♀♀. Also one from the same source in coll. Brit. Mus.

Apart from the smaller size and the distinctions above noted, *isotima* differs in having the genitalia smaller, more symmetrical (the right arm in *humilis* truncated), the penis differently shaped, etc.

30. *Parallelia curvisecta* (Warr., MS. ?), sp. n.

♂ ♀.—50–54 mm.

Similar to *interpensa*, Guen. Whitish lines on patagia and tegulae better developed.

Fore wing with basal area concolorous with proximal part of median; subbasal white half-line well developed; *ante-median line curved*, parallel or nearly parallel with median.

Hind wing paler beneath, especially in abdominal region.

Dutch New Guinea: Wandammen Mountains, 3000–4000 feet, November, 1914 (A. C. & F. Pratt), type ♂ and allotype ♀; Arfak Mountains.

Labelled by Talbot "*Parallelia curvisecta*, Warr.," which must be an unpublished name.

31. *Parallelia euryleuca*, sp. n.

♂.—70 mm.

Palpus with third joint short; head brown; thorax light brown; antennal shaft white proximally. Abdomen pale yellow-grey beneath, dark-mixed dorsally except at ends of segments; anal tuft strong, tinged with light brown.

Fore wing lighter brown than in the allies (*crameri*, Moore, etc.), with a faint olivaceous tinge; some violet-grey

irroration near base and at termen; basal area 9 mm. at costa, 10 mm. at hind margin, the straight white line which bounds it consequently less oblique than in *crameri*; a broad white median band very slightly irrorated in its proximal half with brownish; in the middle almost 6 mm. in width, broadening slightly at hind margin and slightly more at costa, its distal boundary being very gently curved; postmedian line slender, white, oblique outwards from costa 10 mm. before apex, right-angled at R^1 , then oblique inwards, scarcely appreciably incurved in posterior part; a slight pale line from angle of postmedian to apex; distal area beyond these lines paler than the ground-colour; a slight dark dot on fold close to termen, with a weaker dark spot proximal to it between M^2 and fold; terminal line slight and slender; a pale line at base of fringe.

Hind wing concolorous; median white band less sharply bounded, 5 mm. wide anteriorly, tapering posteriorly; terminal region marked as in *crameri*.

Underside yellow-grey, the fore wing paler and more glossy posteriorly; fore wing with proximal area very slightly dark-shaded, median line obsolescent, postmedian curved anteriorly, followed by some brown shading, which contains the pale subterminal line and an ill-defined blackish blotch between R^3 and fold, a narrow distal shade of violet-grey; hind wing with faint angulated median, waved postmedian, and dentate pale subterminal, the latter placed on weak dark shading, space between median and postmedian lines more yellowish grey than the rest of the wing; both wings with the cell-dot of *crameri* obsolete.

Sundakan, N.E. Borneo (*Pryer*).

Larger and paler than *crameri*, with differently shaped markings and much more feebly marked underside.

32. *Parallelia adunca*, sp. n.

♀.—36 mm.

Head and thorax light brown; abdomen more greyish, underside paler. Palpus moderate, with third joint nearly half as long as second. Wings shaped and marked nearly as in *erectata*, Hmps., of which it may be a subspecies.

Fore wing light ochreous-brown with slight darker suffusions (especially in distal half of median area), but less reddish than in *erectata*; a slender waved subbasal dark line from costa to SM^2 ; antemedian line blackish, thickened except at extremities, finely pale-edged distally, very slightly sinuous, more vertical than in *erectata*; cell-mark grey,

humular; median line grey, sinuous, excurved beyond cell-mark, incurved at fold; postmedian line black, produced to an acute angle outwards at R^1 , then somewhat crenulate, bent inwards at submedian fold; a narrow paler band beyond the postmedian, faintly bisected from R^1 to hind margin; a large black subapical dot as in *erectata*; apical dark mark minute and not strong; terminal line fine, crenulate, grey, not very conspicuous except in a black dot at fold.

Hind wing similar to that of *erectata*, but more weakly marked.

Underside pale grey tinged with yellow-brown, very feebly marked; cell-dots obsolete; postmedian indicated, at costa slightly pale-edged distally; a crenulate pale subterminal line indicated on hind wing.

Cameroons (*Watkins*).

33. *Tolnaodes dasynota calocraspeda*, subsp. n.

♂ ♀.—*Fore wing* in general less reddish than in *dasynota dasynota* from Colombia, Venezuela, and French Guiana, with darker clouding in distal area; fringe above, as well as beneath, white between the folds of cellules 4 and 5 and again before (and sometimes also behind) M^2 .

Hind wing dark, in general with the subterminal markings less prominent.

Peru and Ecuador; the type and another ♂ from Santo Domingo, S.E. Peru, 6000 feet, November 1904 (*G. Ockenden*); ♀ ♀ from Rio Pastaza, E. Ecuador, 3500–4900 feet (*G. Palmer*), and Rio Tabaconas, N. Peru, 6000 feet (*A. E. & F. Pratt*).

Subfamily EREBINÆ (Noctuinæ, Hmps.).

34. *Melapera roastis*, Hmps.

This interesting species, a genotype, was described (*Ann. & Mag. Nat. Hist.* (8) i. p. 488) from a single ♀ from Forêt d'Ambre, Madagascar. A ♂ in the Joicey collection (Fort Carnot, Tananarivo dist.) is smaller, 52 mm., the fore wing yellow, suffused with pink, becoming pink basally and posteriorly and with shadowy pale pink markings, namely, a roundish spot in cell, another at base of R^2-M^1 , a smaller one anterior to this, and a subterminal row of smaller inter-neural ones about 4 mm. from termen, that in cellule 6 slightly displaced distad; the hind wing with strong red hair in abdominal region.

The generic characters do not need amplification except

to add that the antenna is bipectinate to apex, the branches rather long, shortening suddenly at apical end, and that vein C of the hind wing does not anastomose with cell in the middle, but is connected with a bar as in the Aganaidæ, with which the genus seems to show some affinity.

Subfamily *HYBLÆINÆ*.

35. *Hyblæa joiceyi*, sp. n.

♂.—46 mm.

Head and palpus purple-fuscons, palpus beneath whitish proximally. Thorax chocolate-brown; beneath paler, variegated with whitish and yellowish anteriorly, with reddish posteriorly. Abdomen above fleshy greyish; beneath mostly red, with a dark central line. Fore leg with gold-yellow tuft on coxa, femur white, tibia above brown, tarsus blackish; middle and hind legs predominantly red.

Fore wing not very broad, costal margin not strongly arched (very slightly waved), termen almost straight and rather oblique from apex to M^1 , somewhat excised between M^1 and torus: chocolate-brown, slightly variegated in the shadings, almost throughout with irregularly scattered dots and small spots of greenish white; faint indications of an elongate dark apical streak.

Hind wing scarlet-vermilion, unmarked; abdominal margin with tufts of very long yellowish hair; fringe yellowish, from apex nearly to R^1 proximally infuscated.

Fore wing beneath red-orange, becoming infuscated midway between cell and termen, darker at extreme margin; costal margin dotted with fuscons; hind margin pale; a rosy patch in submedian area; an elongate dark cell-mark. Hind wing beneath orange-red with coarse purple-fuscons speckling, which in distal area is condensed into an ill-defined cloud; between fold and abdominal margin clear red, as above.

Isle of Mioswar, Geelvink Bay, North Dutch New Guinea, September 1909 (*C. & F. Pratt*).

Near *ibidias*, Turn. (Proc. Linn. Soc. New South Wales, xxvii. p. 135), but larger, the wings slightly narrower; further distinguished by the pale-spotted fore wing and even brighter red, entirely unmarked hind wing.

36. *Hyblæa puera vitiensis*, subsp. n.

♂, 40 mm.; ♀, 36 mm.

Abdomen beneath wholly red.

Fore wing above with strong purple shades (but evidently variable, as in the other forms).

Hind wing above with the orange markings entirely bright red, at most with a few orange scales in middle of anterior margin of central band; beneath brighter red than in the other forms, scarcely irrorated and not clouded with purple-fuscous, not mixed with yellow between M^2 and abdominal margin; basal area, on the other hand, gold-yellow.

Suva, Viti Levu (*Woodford*), type. New Hebrides.

Family Geometridæ.

Subfamily STERRHINÆ.

37. *Scopula hesycha*, sp. n.

♂.—27 mm.

Face black-brown. Vertex whitish, narrowly black-edged behind. Antennal joints scarcely projecting, ciliation scarcely longer than diameter of shaft. Collar ochreous. Thorax and abdomen concolorous with wings. Hind tarsus well under one-half the length of tibia. Wings shaped nearly as in *delitata*, Prout, the bend at R^3 of hind wing slightly more noticeable.

Fore wing slightly more brownish than in *delitata*, the irroration being equally fine and close but slightly darker; markings as in *delitata*, but slightly less weak, the whitish subterminal line standing out rather more sharply, a little recalling that of *bifalsaria*, Prout; terminal dots even more minute than in *delitata*, only discernible in anterior part or wholly wanting; fringe not irrorated.

Hind wing with corresponding markings; terminal dots wanting.

Fore wing beneath with rather strong reddish-smoky suffusions in and beyond cell, leaving the posterior and distal areas pale, the costal edge narrowly ochreous; cell-dot present; median shade weak; postmedian line well developed; a fine terminal line. Hind wing beneath whiter; cell-dot minute, scarcely noticeable; postmedian line faint; terminal line obsolescent, except as interneural dots.

Chang Yang, Central China, June 1888 (*A. E. Pratt*), type in coll. Joicey; paratypes, June and July, in coll. Brit. Mus. Moupin, W. China, June 1890 (*Kricheldorf*), a rather larger, rather more brownish ♀, in coll. Joicey.

Nearest *delitata*, but with shorter hind tarsus and antennal ciliation.

38. *Scopula scialophia*, sp. n.

♂.—22 mm.

Closely like the less variegated forms of *fibulata*, Guen.,

from Ceylon and S. India. Antennal ciliation slightly longer. Hind leg formed nearly as in *cleoraria*, Walk., and its form (?) *effrenata*, Walk. (both wrongly sunk by Hampson under *fibulata*), i. e., with the tarsus relatively much shorter than in *fibulata*, less than one-half as long as the tibia. A large tuft of rather glossy, distally darkened hair at base of abdomen beneath. Fore wing with the irroration rather less black than in *fibulata*, median shade not very diffuse, postmedian line rather less sharply angulated at R¹, terminal line not continuous, not running round apex.

Khasia Hills, type (*Nissary*); paratype in coll. British Museum.

Smaller than *cleoraria* and *effrenata*, antennal joints less projecting, the tuft at base of abdomen distinctive.

Family *Ægeriidæ*.

Subfamily *ÆGERIINÆ*.

39. *Homogyna spadiceicarpus*, sp. n.

♂.—25 mm.

Face black in middle, white at sides. Palpus with first joint black; second joint above and beneath mostly white, the fringes of hair on both sides black; third joint mostly white. Postorbital rim white. Vertex light ochreous-brown. Thorax above glossy black, with slight blue reflections and with a narrow band of light blue in front; a large red shoulder-spot, in certain lights shot with violet. Abdomen above bright chestnut (in some lights with slight violet reflections), the segments narrowly ringed with black anteriorly, with whitish posteriorly: underside as far as the third sternite black with blue reflections, fourth sternite white, fifth to seventh white with anterior black border; anal tuft above blue-black, beneath orange-ochreous. Legs black with blue gloss, the fore coxa, hair-tufts, spurs, and narrow rings at ends of tarsal joints predominantly white.

Fore wing black, in some lights brown-black, in some lights with bluish or greenish gloss, especially along the margins.

Hind wing vitreous, the veins, cell-mark, costal and distal margins, and fringes concolorous with fore wing.

Source of Karungu River, N.E. Rhodesia, December 1916 (*S. A. Barns*).

Nearest to *sanguicosta* and *albicincta*, Hmps.